(2) INFORMATION FOR SEQ ID NO:2:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 27 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

CGGAGATCTC GTGCGACCGC GAGAGCC                        27

(2) INFORMATION FOR SEQ ID NO:3:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 38 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

GGAATTCGCT AGCTTTCCAG GAGCGCAAAT GTTGTGTC            38

(2) INFORMATION FOR SEQ ID NO:4:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 26 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

CGGAGATCTC CGCGACCCCG AGAGCC                        26

(2) INFORMATION FOR SEQ ID NO:5:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 36 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

CAGGTAGCAG AGTTTGGGAG ACAGGGAGAG GCTCTT                                      36

(2) INFORMATION FOR SEQ ID NO:6:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

AGTTTGGGAG ACAGGG                                                            16

(2) INFORMATION FOR SEQ ID NO:7:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 24 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

CGGGATCCAG AGCTGCAACT GGAG                                                   24

(2) INFORMATION FOR SEQ ID NO:8:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 26 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

GAAGATCTGA CCTTGAAGAA GGTGAC                                                 26

(2) INFORMATION FOR SEQ ID NO:9:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA


(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

TCTCCTCCAG TTGCAGCTCC GGAGACAGGG AGAGGC                    36

(2) INFORMATION FOR SEQ ID NO:10:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

TTGCAGCTCC GGAGAC                                          16

(2) INFORMATION FOR SEQ ID NO:11:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

ATCCAGCAGG TAGCAGAGGT CCAGCTCCCC GTCCTG                    36

(2) INFORMATION FOR SEQ ID NO:12:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

TAGCAGAGGT CCAGCT                                          16

(2) INFORMATION FOR SEQ ID NO:13:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs

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           (B)  TYPE: nucleic acid
           (C)  STRANDEDNESS: single
           (D)  TOPOLOGY: linear

     (ii) MOLECULE TYPE: cDNA



     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

CCTGCTGAAC TTCACTCTGA AGAAGGTGAC GGTGGC                                    36

(2) INFORMATION FOR SEQ ID NO:14:

     (i)  SEQUENCE CHARACTERISTICS:
           (A)  LENGTH: 16 base pairs
           (B)  TYPE: nucleic acid
           (C)  STRANDEDNESS: single
           (D)  TOPOLOGY: linear

     (ii) MOLECULE TYPE: cDNA



     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

TTCACTCTGA AGAAGG                                                          16

(2) INFORMATION FOR SEQ ID NO:15:

     (i)  SEQUENCE CHARACTERISTICS:
           (A)  LENGTH: 36 base pairs
           (B)  TYPE: nucleic acid
           (C)  STRANDEDNESS: single
           (D)  TOPOLOGY: linear

     (ii) MOLECULE TYPE: cDNA



     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

CAGCACAATC AGGGCCATGT CCAGCTCCCC GTCCTG                                    36

(2) INFORMATION FOR SEQ ID NO:16:

     (i)  SEQUENCE CHARACTERISTICS:
           (A)  LENGTH: 16 base pairs
           (B)  TYPE: nucleic acid
           (C)  STRANDEDNESS: single
           (D)  TOPOLOGY: linear

     (ii) MOLECULE TYPE: cDNA



     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

AGGGCCATGT CCAGCT                                                          16
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(2) INFORMATION FOR SEQ ID NO:17:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 28 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

CGGAATTCGG TACCTCCTGT GCAAGAAC                                          28

(2) INFORMATION FOR SEQ ID NO:18:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 26 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

CGGAATTCGC CTCCACCAAG GGCCCA                                            26

(2) INFORMATION FOR SEQ ID NO:19:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 31 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

CGGAATTCAC GCGTCCCAGT CAGGACACAG C                                      31

(2) INFORMATION FOR SEQ ID NO:20:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 35 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GAGAGAGATC TGCTAGCGGT CAGGCTGGAA CTGAG                                      35

(2) INFORMATION FOR SEQ ID NO:21:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

GCATGTGTGA GTTTTGTCTG AGGAGACGGT GACCAG                                     36

(2) INFORMATION FOR SEQ ID NO:22:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

GTTTTGTCTG AGGAGA                                                           16

(2) INFORMATION FOR SEQ ID NO:23:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 32 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

GTGACAGTCG ACCCCTTGAA GTCCACTTTG GT                                         32

(2) INFORMATION FOR SEQ ID NO:24:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

CCACCCCTCA CTCTGCTTCT C                                          21

(2) INFORMATION FOR SEQ ID NO:25:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 43 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

TCGACCAGCG GCAGCGGCAA GAGCAGCGAG GGTAAGGGTA CCA                  43

(2) INFORMATION FOR SEQ ID NO:26:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 43 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

GATGTGGTAC CCTTACCCTC GCTGCTCTTG CCGCTGCCGC TGG                  43

(2) INFORMATION FOR SEQ ID NO:27:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

CTCCTGTAGT AGCACCTGAC CCTTACCCTC GCTGCT                          36

(2) INFORMATION FOR SEQ ID NO:28:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs

(B)  TYPE: nucleic acid
        (C)  STRANDEDNESS: single
        (D)  TOPOLOGY: linear

    (ii)  MOLECULE TYPE: cDNA


    (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:28:

AGCACCTGAC CCTTAC                                                    16

(2)  INFORMATION FOR SEQ ID NO:29:

    (i)  SEQUENCE CHARACTERISTICS:
        (A)  LENGTH: 36 base pairs
        (B)  TYPE: nucleic acid
        (C)  STRANDEDNESS: single
        (D)  TOPOLOGY: linear

    (ii)  MOLECULE TYPE: cDNA


    (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:29:

GCATGTGTGA GTTTTGTCCT TGAAGTCCAC TTTGGT                              36

(2)  INFORMATION FOR SEQ ID NO:30:

    (i)  SEQUENCE CHARACTERISTICS:
        (A)  LENGTH: 16 base pairs
        (B)  TYPE: nucleic acid
        (C)  STRANDEDNESS: single
        (D)  TOPOLOGY: linear

    (ii)  MOLECULE TYPE: cDNA


    (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:30:

GTTTTGTCCT TGAAGT                                                    16

(2)  INFORMATION FOR SEQ ID NO:31:

    (i)  SEQUENCE CHARACTERISTICS:
        (A)  LENGTH: 27 base pairs
        (B)  TYPE: nucleic acid
        (C)  STRANDEDNESS: single
        (D)  TOPOLOGY: linear

    (ii)  MOLECULE TYPE: cDNA


    (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:31:

GTGACACTCG AGACGGTGAC CAGGAGT                                        27

(2) INFORMATION FOR SEQ ID NO:32:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 58 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: cDNA


   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

TCGAGCGGCG GTGGAGGTAG CGGAGGTGGC GGATCTGGAG GCGGTGGTAG CACGCGTA        58

(2) INFORMATION FOR SEQ ID NO:33:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 58 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: cDNA


   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

GATCTACGCG TGCTACCACC GCCTCCAGAT CCGCCACCTC CGCTACCTCC ACCGCCGC        58

(2) INFORMATION FOR SEQ ID NO:34:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 36 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: cDNA


   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

CTGGGTCAAC TGGATGTCGC TACCACCGCC TCCAGA        36

(2) INFORMATION FOR SEQ ID NO:35:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 16 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

TGGATGTCGC TACCAC                                                    16

(2) INFORMATION FOR SEQ ID NO:36:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 33 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

GGTCGACCTG GATCCGCCAT ACCACATTTG TAG                                  33

(2) INFORMATION FOR SEQ ID NO:37:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 33 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

GCCGCGGCTC TAGAGCCAGA CATGATAAGA TAC                                  33

(2) INFORMATION FOR SEQ ID NO:38:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 33 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

AAGCTTGTGC TAGCTATCCC GCCCCTAACT CCG                                  33

(2) INFORMATION FOR SEQ ID NO:39:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 33 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA


        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

CGAATTCGGT CGACCGCAAA AGCCTAGGCC TCC                                    33

(2) INFORMATION FOR SEQ ID NO:40:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 30 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

GTCTATAGCA TGCTCCCCTG CTCCGACCCG                                        30

(2) INFORMATION FOR SEQ ID NO:41:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 30 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

GGTACCGAAT TCTCCTGCGG GGAGAAGCAG                                        30

(2) INFORMATION FOR SEQ ID NO:42:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 26 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA



        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

CGCCAAGCTT GGCCATTGCA TACGGT                                           26

(2) INFORMATION FOR SEQ ID NO:43:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

GAGGTCTAGA CGGTTCACTA AACGAGCTCT                                    30

(2) INFORMATION FOR SEQ ID NO:44:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 13 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

    Gly Ser Thr Ser Gly Ser Gly Ser Ser Glu Gly Lys Gly
    1               5                   10

(2) INFORMATION FOR SEQ ID NO:45:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 15 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

    Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    1               5                   10                  15

(2) INFORMATION FOR SEQ ID NO:46:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 30 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

GATCATGGCG CCAGAACTGC ATGGAGATGG                                    30

(2) INFORMATION FOR SEQ ID NO:47:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 30 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

GATCATGGGC CCAGTGTTCT CCAGAGGGTC                                    30

(2) INFORMATION FOR SEQ ID NO:48:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 30 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

GATCATGGCG CCCAGAGCTG TGTGGAGCTG                                    30

(2) INFORMATION FOR SEQ ID NO:49:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 30 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

GATCATGGGC CCGCCACCAG GTGCAGGTTC                                    30

(2) INFORMATION FOR SEQ ID NO:50:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 30 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

GATCATGGCG CCCAGAACTG CATTGAACTA                                    30

(2) INFORMATION FOR SEQ ID NO:51:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 30 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: double
            (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA


    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

GATCATGGGC CCACTCTGAG TCCTGAGTTC                                    30